REMARKS

In response to restriction requirement indicated in Office Action dated 9/9/02, Applicant elects Group I, thereby canceling claims 13-20, without prejudice. Claim 1 is amended, and new claims 21-28 are added; thus claims 1-12, and 21-28 are present for consideration. Specification is edited to correct minor grammatical errors.

Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 5,970,500 to Sabatini et al. Furthermore, claims 2-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,970,500 to Sabatini et al. in view of U.S. Patent No. 4,975,840 to DeTore et al.

Applicant amends independent claim 1, and thus those claims dependent thereon, to define that:

> *"the bioinformatic value may be determined when or after the user permits access effectively to a voluntarily-selected portion of his or her personal genetic profile, such accessible portion being associated or used with evaluating the user transaction, an other portion of such genetic profile being not voluntarily-selected by the user and thereby inaccessible for evaluating the user transaction."*

Neither Sabatini, DeTore or other cited reference(s), either individually or in combination suggests or discloses Applicant's claimed invention. Sabatini "database and system for determining, storing and displaying gene locus information" describes software for user to determine relative position of selected gene sequence with genome (col. 2, lines 13-15), particularly only using open reading frame (ORF) mask repeatedly or continuously to find genes in target region (col. 9, lines 1-6). DeTore "method and apparatus for evaluating a potentially insurable risk" describes software and database considering medical impairments, problems and conditions to determine risk and insurability (col. 5, lines 4-60), particularly only evaluating medical tests, examinations, inspection reports, medical histories, age, and blood tests (col. 4, lines 30-50).

Thus, Applicant respectfully submits that no cited reference teaches or suggests, substantially among other things, determination of bioinformatic value when or after user

permits access effectively to voluntarily-selected portion of personal genetic profile, such portion being associated or used with evaluating user transaction, and other portion of genetic profile being not voluntarily-selected by user, thereby inaccessible for evaluating user transaction.

Additionally, new claims 21-28 are added to define novel aspects of invention.

In view of above, it is respectfully submitted by Applicant that claims are in condition for allowance. Reconsideration of rejections is requested. No fee is required.

Respectfully submitted,

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"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

In the Specifications:

Please replace the paragraph starting on page 5, line 8, with the following:

Each compute server facility 4, 6, 8, 10, 12, 14, 16 may operate independently or cooperate[ive] processing function effectively to distribute compute loading and data storage across scalable network resources.

Please replace paragraph starting on page 5, line 12, with the following:

Preferably, each such server is configured to run one or more conventional operating systems and programming languages and utilities, such as Windows, fortran, Unix, Linux, C/C++, perl, corba, cgi, etc.; one or more object-oriented or relational database management system to enable homogenous or heterogeneous data format and access, such as sql format; network communications interface management utility to enable apparently seamless file transfer and access, such as file transfer protocols, electronic mail, so-called htm/xml/java and other media format for web browse and on-line transaction and commercial access.

Please replace paragraph starting on page 10, line 11, with the following:

One or more heuristic or rule may be provided similarly to one or more actuarial or risk table or transmitted in electronic form as a computational model following one or more high-level programming or spreadsheet language, such as C/C++ or other database management syntax. Further, such heuristic or rule may provide numerical or statistical instructions or groupings to_assign or calculate one or more risk profile values to one or more user applicants according to individual characteristics, such as age, sex, smoker status, marriage status, prior medical history, etc.

Please replace paragraph starting on page 11, line 12, with the following:

Additionally, such bioinformatic data or genetic term may be based on an established or calculated statistical or actuarial table or other database and genetic or heredity profile associated with the particular user or set thereof. Bioinformatic values or genetic terms may be determined

by or through one or more network-accessible servers, and such values or terms are stored confidentially in one or more local or remote database associated therewith.

Please replace paragraph starting on page 13, line 2, with the following:

Optionally, one or more sequence segments may be designated by transaction processing rule set or heuristics to be blocked or otherwise disregarded from consideration for transactional risk analysis, otherwise, detection of such restricted analysis may result in discrimination indication, as described herein.

Please replace paragraph on page 14, line 13, with the following:

Preferably, user device 12 includes one or more memory circuits or database software structure 13 for storing bioinfomatic value or genetic term associated with one or more user, and microprocessor for securely controlling access to stored values and terms through network 2. Device microprocessor may enable[s] secure access and transaction between servers 4, 6, 8, 10, 12, 14, 16. In particular, microprocessor may determine, flag, monitor, alert, or otherwise signal specified transaction conditions, such as unsecured access, multi-user transaction, same bioinformatic value condition, rule-violation transaction discrimination, etc.

In the Claims:

Please cancel claims 13-20. Claims 1-12 are submitted for consideration. Claim 1 is amended. Claims 21-28 are added.

Please amend claim 1 as follows:

1. ***(Amended)*** Automated transaction method comprising the steps of:

determining a bioinformatic value associated with a user; and

transacting with the user according to the bioinformatic value,

wherein the bioinformatic value may be determined when or after the user permits access effectively to a voluntarily-selected portion of his or her personal genetic profile, such accessible portion being associated or used with evaluating the user transaction, an other portion of such genetic profile being not voluntarily-selected by the user and thereby inaccessible for evaluating the user transaction.

Claims 2-12 are un-amended and re-presented here for convenience:

2. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value comprises a likelihood or risk of the user having or developing a genetically-based medical or physiological condition, wherein the transaction step comprises providing the user with an insurance policy to cover the occurrence of the genetically-based condition.

3. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value comprises a likelihood or risk of the user having or developing a genetically-based mental or emotional condition, wherein the transaction step comprises providing the user with a service contact in contemplation of the occurrence of the genetically-based condition.

4. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value comprises a likelihood or risk of the user having or developing a genetically-based condition, wherein the transaction step comprises

providing the user with a promotional offer or bid to serve the genetically-based condition.

5. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value comprises a classification of the user according to a user-authorized mask, such mask comprising a subset of a genetic sequence associated with the user.

6. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value comprises a likelihood or risk of the user having or developing a genetically-based condition based on a statistical or actuarial table and a genetic or heredity profile associated with the user.

7. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value is processed for transaction with the user according to a rule set that is applicable to a plurality of users in a temporal or jurisdictional grouping on a non-discriminatory basis.

8. ***(Un-amended)*** The method of Claim 1 further comprising the steps of:

determining an other bioinformatic value associated with the user; and

modifying the transaction with the user according to the other bioinformatic value.

9. ***(Un-amended)*** The method of Claim 8 wherein:

the other bioinformatic value comprises an increase or decrease of likelihood or risk of the user having or developing the genetically-based condition.

10. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value is determined by a server in a network, and the bioinformatic value is stored confidentially in a database associated with the server, the server transacting remotely with the user through the network to enable a medical service for the user.

11. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value is associated with an other user, and the transaction according to the bioinformatic value occurs separately with both users on a confidential and non-discriminatory basis.

12. ***(Un-amended)*** The method of Claim 1 wherein:

the bioinformatic value is authentically generated by a portable user device, the transaction updating a user account, which is accessible by the user device.

Please add new claims 21-28:

21. ***(New)*** The method of Claim 1 wherein:

the bioinformatic value or the genetic profile is represented in a data structure that may be provided in a modulated electronic signal.

22. ***(New)*** The method of Claim 1 wherein:

the user transaction comprises a plurality of offers to the user for transacting competitively according to the bioinformatic value.

23. ***(New)*** The method of Claim 1 wherein:

the bioinformatic value determination generates an alert or report indicating a fraudulent or identical genetic profile or state.

24. ***(New)*** The method of Claim 1 wherein:

the bioinformatic value determination generates a discrimination indication or alert when comparing bioinformatic values associated with a plurality of users.

25. ***(New)*** The method of Claim 1 wherein:

the bioinformatic value is determined using a signal generated electronically by a biometric or bioinformatic sensor for determining a personal genetic sequence of the user.

26. ***(New)*** The method of Claim 1 wherein:

the bioinformatic value or the genetic profile corresponds effectively with a single nucleotide polymorphism (SNP) associated with the user.

27. *(New)* Automated transaction method comprising the steps of:

permitting by a user effective access to a voluntarily-selected portion of a personal genetic profile of the user, such accessible portion being used to determine a bioinformatic value associated with the user, an other portion of such genetic profile being not voluntarily-selected by the user and thereby inaccessible for determining the bioinformatic value; and

transacting by the user according to the determined bioinformatic value.

28. *(New)* Automated transaction method comprising the steps of:

determining by a care-giver a bioinformatic value associated with a user, the user permitting effective access to a voluntarily-selected portion of a personal genetic profile of the user, such accessible portion being used to determine a bioinformatic value associated with the user, an other portion of such genetic profile being not voluntarily-selected by the user and thereby inaccessible for determining the bioinformatic value; and

transacting with the user a healthcare service according to the determined bioinformatic value.